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6/24/98

## SPACE BUSINESS DAILY

TOMORROW'S HEADLINES

**CONSTRUCTION WORK WILL START JULY 1 AT KWAJALEIN ISLAND FOR TESTING ICBM DEFENSES.** Reports are that experimental models of the NIKE-ZEUS will be the first anti-missile units tested. Targets will be ATLAS and TITAN missiles fired from Vandenberg AFB, 4500 miles from Kwajalein. About 1000 persons, almost all civilian, will be at work on the island project. Significantly, Kwajalein is only a few hundred miles from the AEC testing grounds at Bikini and Eniwetok. This would allow testing of anti-missile nuclear warheads. Missiles fired in the direction of Kwajalein would follow a path running about halfway between Hawaii and Midway. Operation of the new base might give a considerable boost to the NIKE-ZEUS program which now has high priority for development, but no permission to start production. Presumably, many of the major components are ready for integrated testing. No announcement of progress on the detection parts of the system has been made, but the huge 450,000 lb. solid booster fired by Thiokol at Redstone Arsenal last year is supposedly the ZEUS boost unit. Other stages might be adaptations of NIKE-HERCULES units. First detection units to be tested will probably be radar, but later ones might be infrared or magnetic detection devices, offering somewhat quicker target pickup.

**WITH DISCOVERER I NOW CONFIRMED IN ORBIT, CONSIDERABLE TALK IS GOING AROUND ABOUT THE UPCOMING MIDAS series.** After the combination THOR/HUSTLER is a proven vehicle, it seems likely that AF will press the MIDAS shots. MIDAS reportedly is a detection system using infrared as a sensor. While the first notion of infrared scanning seems a fairly simple scheme of detecting hot spots in the otherwise grey global pattern as missile exhausts upset the normal temperature, there is probably more to the project than this. Recent testimony on the Hill brought out the fact that we had a method of detecting ICBM's while still on the launching pad. One observer notes that liquid-fueled missiles on ready present quite a patch of cold when loaded with liquid oxygen. Maybe MIDAS will not only search for hot white spots, but also for cold black spots. This would only serve to tell us where the missiles were; detection of exhaust would still be needed to determine the ballistic trajectory of a missile. And there is another joker in the cold detection scheme. It might be possible to artificially heat the surrounding area where a missile is sitting and, by using a temperature sensor and a servo, to keep the launching area grey to MIDAS.

**ANNOUNCEMENT HAS BEEN MADE THAT RADIOPLANE DIVISION OF NORTHROP WILL BEGIN DEVELOPMENT OF THE recovery system for Project MERCURY.** Radioplane's Paradyamics group will do the work. The Paradyamics group specializes in the design, test and production of special parachute deceleration and recovery systems. Radioplane has been in the recovery business for some time now; mainly with drones but also for some missiles such as the SIDEWINDER. McDonnell Aircraft, which made the contract award, chose Radioplane after a competition with several other companies including Cook Electric. Reports have it that Radioplane and Cook were about even on time to deliver and capability, but that Radioplane's price was lower. Experience in the MERCURY program might do much when the SATURN recovery contract is awarded.

**RUSSIAN MISSILE-CARRYING SUBMARINES, MENTIONED BY VADM WILLIAM G. COOPER AT THE RECENT NAVY LEAGUE SYMPOSIUM (SBD, March 5, p. 1) are of two new types.** The first, Z class diesel-electric subs displacing over 3000 tons, have large conning towers which could be carrying ballistic missiles. But the Navy prefers to think that the Z-boats are carrying air-breathing missiles. The other new type displaces about 2000 tons and is conventional in appearance, making it almost a certainty. Approved For Release 2001/09/07 : CIA-RDP91-00965R000200090001-9 credits Russia with about 20 of the larger subs and "somewhat less" of the smaller.